

STEALING TRADE SECRETS

TRICKS ON WHICH GREAT INDUSTRIES HAVE BEEN BUILT.

Switzerland's Loss of the Monopoly in Watch Springs—Wire Secrets Twice Stolen—Ship of a Supposed Minister—The Trained Eye of an Expert.

Ever since a Devil stole an English loom one piece at a time, taking the fragments to France and afterward bringing them to Fall River, where the reassembled parts formed the basis of the chief industry of that city, manufacturers all over the world have been trying to get at the trade secrets of their rivals or to prevent their rivals from discovering their own special processes. Many another great industry has a similar basis of a stolen trade secret.

Take the watch business for instance. For many years Switzerland was the home of the watch industry. The watches that bore the name of makers in other countries depended for their accuracy upon the spring, and the springs were all made in Switzerland; no other country knew how to temper them. The secret was held by two men who ran a factory in the canton of Bern.

A man who is well known throughout the world as an inventor of children's toys and was recognized as a mechanical genius in his day undertook to get this secret from the Swiss. He had all the qualifications necessary for the task, being an expert chemist, a trained worker in metals and a fluent German and French scholar.

He went to Switzerland in the capacity of a country gentleman who was interested in the geological formation of that region. He cared nothing about the watch business and absolutely declined to talk watches with any of his friends, although it was the chief industry of the country and most of his acquaintances were engaged in it.

By his genial manner and free spending of money he found it easy to get acquainted with whom he chose and in the course of time he brought things around so that he met the only two men in the world who knew how to temper watch springs.

The younger of these two men took quite a fancy to the visitor and they soon became fast friends, but the older man seemed to have an intuitive suspicion that the stranger was not what he represented himself to be.

The visitor was sharp enough to discern this feeling of distrust and to avoid the older man, never alluding to him even, so as not to risk any quarrel with the younger, with whom he was getting on better than he had hoped.

The secret after several weeks was one of those who believe in seizing opportunities but who have no faith in this talk about making opportunities yourself. He was willing to wait long and patiently for his opportunity to come, but he was not going to seek it. He knew that several of his predecessors had failed by being too anxious to create the opportunity they sought, either by leading the conversation to the subject or by pretending to be anxious to see something else that they hoped would lead to their seeing what they sought.

This man's plan was deeper than that. He did not want to see anything. He cared nothing about anything connected with the watch business and never took any part in the conversation on that subject. He was to get \$10,000 if he could find out the secret he was after, and he could afford to bide his time.

The building in which the secret tempering process was carried on was on the side of a hill. The two friends had passed it time and again, but the owner never alluded to it and the other never expressed any curiosity about it. That is where he was smart and showed the stuff he was made of. Your true diplomat never speaks until his turn comes.

One day the younger of the two watchmakers was passing this building with his friend, the supposed geologist, and in a moment of boastful pride offered to show him where the most important part of the work was done. He opened the door for a moment only, to let the visitor have a peep at the forbidden room.

That moment was enough. The style of the furnaces and the smell of the flux told the expert all he wanted to know. The secret of the tempering process was discovered.

As the two turned away from the door the man, the older partner. One glance at the stranger's face was enough to confirm his suspicions. Perhaps he read the concealed look of triumph in the visitor's face, perhaps he felt it in his bones that something was wrong. Turning to his partner he shook his fist in his face and whispered hoarsely:

"You have ruined our business!" The geologist lost no time in getting out of the town and out of Switzerland. Within an hour he was far on his way and for a day or two he stood in dread of the play of his face. He brought the secret to America with him and gave it to the company that had employed him, but on his deathbed he confessed to his nearest friend that he had never ceased to regret having robbed those two Swiss watchmakers of their secret and ruined their business.

Drawing wire is a large and important industry in this country now, but it is not so many years since American methods were so crude that the English wire had the world in all the principal markets of the world. A certain wire company in Connecticut wanted to learn the secrets of the English wiremakers and they sent over about twenty skilled workmen to England with instructions to get the wire-making factories over there if they could learn the tricks.

The men were of more than ordinary intelligence, thoroughly trained, and it was hoped that if only one or two got into the works it would justify the expense of the whole party. The scheme worked out well, as soon as a few of the men had the process of wiremaking down pat they threw up the job in England and came back to Connecticut.

With the natural aptitude of Americans for improving everything, the wire companies on this side soon developed much better ways of doing things than the English firms that they had copied and it was the turn of the English to look to their laurels. Business got so good in Connecticut and orders piled in so fast that the factory could not get hands that attracted such wages that they attracted men from other trades.

Among the men that they took on was one who was particularly apt, and he was soon made a foreman. He was a guttural for work and seemed to be heart and soul in every detail of the business. After he had been in the factory a month or two he gave a big dinner one Saturday night to a number of the employees in his department and they had a great time. People wondered where the foreman got the money to pay for all the wine they drank.

Next Monday morning when the boss rang this particular foreman and eight

of the new hands were not in their accustomed places. On Tuesday morning they were on board ship bound for England and the manager of the wire company found a very polite note from the foreman stating that as the English wiremakers would now have the benefit of the American improvements there would be no hard feelings for the past.

The case and certainty with which an expert can carry away with him the details of anything he sees that is in his line is sometimes astonishing to those who do not understand the mental processes of the trained eye.

A certain firm had made a machine for this purpose but had not patented it. It was set up in a separate room in the shop and was run by a man who was thoroughly trustworthy. At night it was covered up and locked in.

A young fellow from the South, supposed to be selling patent medicines, got acquainted with the foreman of this marble shop and one day he was shown through the works. He stopped in front of this particular machine only long enough to get it in his head and then he was gone. In that time he had seen enough to enable him to go back to his hotel and make a complete working drawing of the machine.

How did he do it? All machinery is simply a transformation of power from one kind of motion to another; from right to circular, from fast to slow, or from continuous to interrupted motion. This young fellow started with the driving belt from the pulley overhead and noted the changes of motion through which this power was sent from one part of the machine to the next until it arrived at the cutting wheels.

Sometimes a person will stumble on a secret by accident. The writer was once getting some photographs made when a part of the camera shutter broke. The man that fixed it drew the secret of soldering aluminum, which was then known to very few people, had no idea of course that the customer sitting at the other side of the room knew that he was doing and recognized both the solder and the fix.

Then again a man who has worked his way slowly and carefully up to a certain point and has the secret he is after almost within his reach will betray himself by some simple action which excites suspicion. There was at one time a great secret about certain processes of treating rubber, and an expert in the business was to discover it for the benefit of a rival concern.

Disguised as a clergyman he got acquainted with the proprietor of the works and after a reasonable time expressed a very natural desire to go through the shops. The proprietor took him through and explained things as they went along in the casual way that you explain things to a person who knows nothing of the technical side of the trade.

When they arrived at the particular department in which the secret process was carried on the proprietor pointed to some of the machinery and told his friend the clergyman into the operating room. The clergyman expressed his astonishment at the great difference between the rubber and the appearance as he was accustomed to it.

"Take a piece of it with you if you like," suggested the manager, upon which the visitor stepped up to the bench, took out his penknife and cut the blade with his lips.

The manager grabbed his arm and turned on him like a flash. "You got out of this factory damned quick, or I'll throw you out. No manager knows that you must wet the blade of your penknife to cut rubber," he said.

Had this man not betrayed himself he would have been taken into the room where the process he had been in search of was being carried on. As it was all he saw was the secret.

Every one knows the story of the man who stole the secret of making Russia iron, that peculiar bluish tinted metal seen in stovepipes and on roofs. The Russian tried very hard to keep the secret of tanning Russia leather, and made it a penal offense for any one to export the mark of the tree which was used in the process of tanning the goat skins.

The many fancy articles that travelers bring from Russia as souvenirs are made of the wood of this tree.

As a rule, when one manufacturer steals the secret of another's success they are sworn enemies and rivals from that time on. It is very rarely that when two share a valuable trade secret they are wise enough to come to terms and work together.

Probably the most remarkable instance of this kind was the secret of the watchmaker's mark on the edges of playing cards. One manufacturer controlled the patent that was supposed to protect this secret. A rival manufacturer, who was actually discovered that this patent would not stand investigation.

Instead of acting on his knowledge and going to court to defend himself, which would throw the secret open to the whole trade, he arranged quietly with his rival to patent a similar device, to be called on it, and to agree to pay a royalty for the use of the original patent.

The agreement was paraded before the rest of the trade, who argued that if such a big house as that had to pay a royalty, the patent must be good.

Their requests for licenses were refused, and the two big houses made all the squarer marked cards in the world for years. Of course no royal was ever paid, and the secret was so well kept that it made fortunes for both houses.

In many large manufacturing concerns there are departments which are set apart for processes more or less secret, and these special shops and offices are guarded with the greatest care. The secrets of these departments would be lost if the many thousands of dollars and they are continually laying steps to them with the aid of men who are trained to the business of ferreting them out.

Do anything and be caught is the motto of these men who steal trade secrets. They will take any old job around the yard or shop, just to get into the factory walls for a while. A man who has this sort will sweep up or carry things, run errands and rush the growler. He makes himself solid with the employees and he will be lead up to our doors by his apparent ignorance. After a time he worms his way into carrying dinners into the forbidden shop, or blacking boots, or being a messenger.

The first thing you know he is among the secrets of the concern taking notes.

Took Turns as the Serpent.

From the Fruit Grower.

Mrs. Rogers had the barrel of russet apples placed in the attic because they were not quite ripe enough to eat and she warned her three boys, whose ages range from 5 to 11 years, not to touch them.

Then, one rainy day, when she sought the attic to get something from her trunk, she came full upon her sons, surrounded by apple cores. At her approach two of the boys drew closer together, but the third, a little distance off, who lay on his stomach contentedly munching an apple, apparently paid no attention to his mother's entrance.

"Jack! Henry! Willie!" she exclaimed reproachfully. "Whatever are you doing? Do you want to eat apples?"

"Oh, yes," returned Willie, the youngest, "we've all been taking turns being the

CHINESE IN CARLOAD LOTS

ARRESTS FOR SMUGGLING ON THE TEXAS BORDER.

Men Prominent in Their Communities Alleged to Have Been Concerned in El-Smuggled Chinese Worth \$500 Each—Officers Killed by Smugglers.

EL PASO, Tex., Dec. 25.—That there has been smuggling of Chinese along the Texas-Mexican border in wholesale lots has been known for many years. The Government took steps a few months ago to put a stop to it and special agents of the Department of Commerce and Labor were set at work to discover the manner in which it was done.

Arrests followed their investigations and they are continuing. It is believed that not half so much smuggling is now going on as formerly. It used to be a common occurrence for a vigilant inspector somewhere in the interior in the big railroad yards, at Fort Worth, Dallas, Dalhart or some place where the trains made long stops, to find box cars after box cars loaded with Chinese who had been smuggled over the border, in most cases at El Paso. The Chinese were hidden in the cars with plenty of provisions and water and the cars were invariably sealed with the seals of the railroad and the immigration service. Some Chinese were found in Pullman and dining cars.

Arrests of railroad employees have been made in several cases, and at least five convictions have been secured. Duplicates of the car seals were recovered in several instances in which railroad men were arrested.

Many surprises have been caused by the arrests that have taken place in Texas in connection with the smuggling of Chinese. Men of good business and social standing have been among the prisoners. One man is now a refugee in Mexico, according to court records, others are under bond, and several are serving sentences in prison. One man is dead, and it is declared that Chinese smugglers secured his silence by killing him. There is a suspicion that two other men were murdered by smugglers.

The latest arrest is that of E. B. Holman, chief of Chinese inspectors for the Government at Galveston. Several Chicago men were arrested in this city and extradited to Illinois for trial. One of their number confessed and all were convicted. In their preliminary hearing at El Paso it was alleged that they made it a regular business to operate with dining car crews of the Rock Island Railroad and ship Chinese in the ice-boxes and linen closets.

One of the witnesses was a cook on one of the cars, and he swore that it was the custom to switch the Chinamen every once in a while from the icebox to the linen closet to keep them from freezing. He declared that one day there was an immigration official aboard and it was impossible to switch the men, and that a Chinaman in the icebox was frozen to death and his body was tossed off the train near Kansas City. The body of a Chinaman was found near the place named, and this case was regarded as corroborative of the story.

Another case was that of Ed. M. Fink, former police chief of El Paso and former customs inspector at El Paso. He was indicted by the Federal Grand Jury on two charges of smuggling Chinamen, one at Roswell, New Mexico, and one at Las Cruces, New Mexico. Fink gave bond in the sum of \$500 in one case and \$2,000 in the other and then went to Mexico to buy mules. His case has been called twice in each court and opposite his name on the docket is written: "Bond forfeited." Fink was a prominent Red Man and several times held office in the State Grand Lodge of the order.

Col. Lewis, another of the accused men, had stood high in his community for many years. He was a conductor on the Rock Island Southwestern Railroad running out of El Paso toward St. Louis and Chicago and was senior passenger conductor on the division. He is a Mason and a Shiner, and at the same time was the supreme lodge of the Scottish Rite Masons in Washington he was selected for special honors. He is a director in the El Paso Military Institute and an officer in the El Paso volunteer fire veterans, and he ran on the Republican ticket two years ago for the Legislature.

He is charged with smuggling Chinamen, and an indictment returned by the Federal Grand Jury at its November term in El Paso. Col. Lewis was in charge of a train that was searched before it left El Paso one evening, the third of last month. Just outside the city limits, and was searched again a few miles up the road and found to contain smuggled Chinamen.

W. B. Green, another Shiner and thirty-second degree Mason, was indicted on the same charge and is now behind the prison bars at Santa Fe, New Mexico, serving a term of one year. He was formerly a trainmaster on the Union Pacific road in Wyoming, and prior to that was a conductor on the New York Central. Frank Sergeant, Commandant of Immigration, is said to have given him his place in the immigration service.

Serving first at Montreal and then coming to El Paso, Green was later transferred to Albuquerque, New Mexico, to search northbound Santa Fe trains after they had left El Paso. Green and H. M. Maynard, a veteran conductor on the Santa Fe, were indicted at the same time. Both were convicted and are now serving their sentences in the same prison. Maynard's porter got off lightly by giving testimony for the Government.

Oliver Carr, another railroad conductor, is under indictment on similar charges. He is also accused of perjury. Carr was tried at Alamogordo, N. M., for a charge of conspiracy to smuggle Chinese and was acquitted. He was tried again the first of this month on a charge of smuggling and the jury failed to agree. Following his trial he was arrested in El Paso on a charge of perjury.

Mar Chew, owner of two restaurants, wearer of diamonds, leader of one branch of the Chinese colony in El Paso, husband of an American woman and divorced husband of another, is under indictment on a charge of conspiracy to smuggle Chinese. The indictment was found at Las Cruces, N. M., and so far Chew has been able to resist removal to the Territory of New Mexico for trial and he still smokes his costly cigars and sports his immaculate tailored clothes on the streets of El Paso.

The most sensational feature of the entire smuggling situation was the death of Manen Clemente, former constable in El Paso. He was killed at night in the Conroy Island saloon, and Joe Brown, manager of the saloon, was indicted on a charge of being concerned in his death. For the defense witnesses testified that Clemente had frequently said that "the next time we drive over a bunch of Chinks near the stock pen I will take that old gun of mine and get the first fellow who squeals, or words to that effect. It was the conviction of the defense that some of the associates

of the former constable had caused his death.

The evidence in this case led to the belief that the death of two customs officers Charles Logan and J. C. Jones, whose bodies were found in the bed of the Rio Grande, was also the work of smugglers. Both customs officers—mounted men and known as line riders—were found dead in the dry bed of the river one morning. They had been engaged in eating their midnight lunch when death overtook them. There was at first an inclination on the part of many persons to believe that the two men had killed each other and their guns were near their bodies and had been used, but it is now the general belief that they surprised a band of Chinese smugglers and were shot down while performing their duties.

It is current report that every Chinaman smuggled into this country is worth \$500 to the smugglers.

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"My barber put one over on me this morning," said Mr. Gillmeister.

"How does it cut?" he said to me, referring, as barbers do, to the razor with which at that moment he was shaving me, and I said, as customers do, sometimes on such occasions:

"Splendid."

"Then a little later I saw the barber dry that razor and put it in a case and wrap it up, and then he handed it over to me. It was my own razor with which he had shaved me, which I had left with him the day before to be put in order. I couldn't growl over it now, when I came to use it, after the praise of it that he had drawn from me unconditionally."

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TRANSFORMATION! Christmas has dropped below the horizon. Tomorrow the doors will swing open and find an avalanche of snowy garments descended over night and spread all through the second floor.

It is the ANNUAL WINTER SALE OF UNDERMUSLINS AND KINDRED WEAR—a characteristic Loese event; an occasion that has no equal outside this store; the great economy event of the Winter which thousands know and for which thousands are waiting.

And the Sale announced today is the greatest White Sale in Loese history. It is tremendous in magnitude. It is marvelous in the values it offers.

\$45,000 in New American and French Undermuslins

were brought in for this Sale IN ADDITION to our regular fine stocks of Undermuslins, much of which will show reduced prices also.

THE SALE IS CONSISTENT ALL THE WAY THROUGH. There are just as many styles and just as wonderful values at every price step from the lowest to the highest.

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Corset Covers, 9c. to 98c.

12c. Women's Corset Covers in three styles of good quality muslin; one with round neck with lace edge, another cut square front, also with lace edge, and one low neck. No mail orders.

12c. Corset Covers in three styles, of soft baserene; one with round neck with lace inserting and beading between the neck and armholes; another with two lace inserting; all French bodies. None C. O. D. No mail orders.

12c. Corset Covers, about seven styles, all of cambric and French body; one model has four rows of lace and lace edge; another has ribbon around neck, finished with embroidery edge. A variety of other models, trimmed with embroidery or lace. None C. O. D. No mail orders.

12c. and 25c. Corset Covers, about nine styles; one of allover embroidery, finished with embroidery edge; another is round neck with two lace inserting and beading between; another style is finished with tucks and hemstitched band with ribbon run through and lace edge.

12c. regularly \$1. French body Corset Covers, of nainsook, three rows of lace and two rows of lawn and feather stitching between; finished at the top with lace beading and beading run through.

12c. and 25c. Corset Covers of cambric and nainso